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EXAMINER	
NGUYEN, NAM V	

ART UNIT	PAPER NUMBER
2612	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/577,504	PITT-PLADDY, GLEN	
	Examiner	Art Unit	
	NAM V. NGUYEN	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 January 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 April 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *1/8/07*
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

The application of Pitt-Pladdy for a "RFID apparatus" filed October 29, 2004 has been examined.

This application claims foreign priority based on the application 0325249.1 filed October 29, 2003 and the application 0405026.6 filed March 5, 2004 in Great Britain. Receipt is acknowledged of papers submitted under 35 U.S.C 119(a) – (d), which papers have been placed of record in the file.

A preliminary amendment to the claims 1-3, 5-6, 15 and 18, filed January 8, 2007, has been entered and made of record.

A preliminary amendment to the claims 5-8, 11-13 and 15, filed April 27, 2006, has been entered and made of record.

Claims 1-18 are pending.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the phrase "a received modulated signal" in line 7, is confusing and unclear. It is not understood what is meant by such a limitation. Is "received modulated signal" is referring to the transmitted an RF signal and received by the "another" device or the modulated RF signal received by the RFID apparatus? "generated a RF signal" in line 9, is confusing and unclear, is a "new" RF signal which is different than the transmit RF signal in line 2? What is different between "transmit an RF signal" and "generated a RF signal"?

Claim 18 recites the limitation "a circuit" in line 3. There is insufficient antecedent basis for this limitation in the claim. "a circuit operative to operate as a radio reader device" should be "another circuit operative to operate as a radio reader device".

Referring to claims 2-17 are rejected as being dependent upon a rejected Claim 1 above.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002

do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claim 18 is rejected under 35 U.S.C. 102(e) as being anticipated by Kotola et al. (US# 6,892,052).

Referring to Claim 18, Kotola et al. disclose a mobile terminal (102) (i.e. a radio frequency apparatus) comprising both a RFID tag (215) (i.e. a circuit) operative to respond to a radio frequency reader apparatus and a terminal RFID reader module (220) (i.e. a circuit) operative to operate as a radio frequency reader device (column 7 lines 55 to column 8 line 12; see Figures 1 to 4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-2 and 7-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kotola et al. (US# 6,892,052) in view of Shober et al. (US# 5,649,295).

Referring to claim 1, Kotola et al. disclose a mobile terminal (102) includes a terminal RFID reader module (220) and a RFID tag (215) (i.e. a RFID apparatus) comprising:

A terminal RFID reader module (220) with a antenna (219) (i.e. a transmitter) operative to transmit an interrogation signal (i.e. an RF signal) to another terminal (column 7 line 66 to column 8 line 12; see Figure 4);

an analog circuit (223) (i.e. a receiver) operative to receive an another interrogation signal (i.e. a modulated RF signal) from another RF reader (110) (column 7 lines 37 to 65; see Figures 3 and 3a); and

wherein the apparatus is arranged to transmit said interrogation signal (i.e. said generated RF signal) such that said interrogation signal (i.e. generated RF signal) interferes with another interrogation signal (i.e. the incoming RF signal) from the another terminal (column 8 lines 1 to 12; see Figures 3 to 4).

However, Kotola et al. did not explicitly disclose a demodulator operative to demodulate a received modulated signal and wherein the apparatus comprises a generator generates a RF signal dependent on an incoming RF signal.

In the same field of endeavor of a dual mode RFID system, Shober et al. teach that a subcarrier demodulator (212) (i.e. a demodulator) operative to demodulate a received modulated signal and wherein the interrogator (105) includes a radio signal source (201) (i.e. a generator) generates a RF signal dependent on an incoming RF signal (column 4 lines 24 to 50; see Figure 2) in order to reduce phase noise and utilize error detection in both messages sent over the link from the interrogator to the RFID tag.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to recognize using the demodulator to receive modulated signal and the radio signal source to generate the RF signal to the tag taught by Shober et al. in the dual mode RFID based wireless terminal of Kotola et al. because using the demodulator to receive modulated signal and the radio signal source to generate the RF signal to the tag would provide a RFID system with low phase noise in the receiver circuit and error free when sent RF signal to the RFID tag.

Referring to Claim 2, Kotola et al. in view of Shober et al. disclose the RFID apparatus according to claim 1, Shober et al. disclose wherein said radio signal source (201) (i.e. said generator) generator comprises a phase sensitive detection system responsive to phase in said incoming RF signal (column 4 lines 24 to 50; column 7 lines 51 to 65; see Figure 2).

Referring to Claim 7, Kotola et al. in view of Shober et al. disclose the RFID apparatus according to claim 1, Shober et al. disclose wherein said interrogator (103) (i.e. said apparatus) is arranged to modulate said generated RF signal prior to transmission of said generated RF signal (column 3 lines 27 to 34; see Figures 1 and 2) in order to have inexpensive circuit.

Referring to Claims 8-12, Kotola et al. in view of Shober et al. disclose the RFID apparatus according to claim 1, Kotola et al. disclose the mobile terminal (102) includes the terminal RFID reader module (220) and a RFID tag (215) (i.e. a RFID apparatus), the mobile terminal (102) has a first mode of operation and a second mode of operation, wherein the apparatus is arranged such that: during said first mode, the apparatus (102) can transmit an RF

signal to a first external device and can receive a modulated RF signal from said first external device; and during said second mode, the apparatus can generate an RF signal dependent upon an incoming RF signal received from a second external device, and transmit said generated RF signal to said second external device (column 7 lines 37 to column 8 line 12; see Figures 3, 3A and 4).

Referring to Claims 13-15, Kotola et al. in view of Shober et al. disclose the RFID apparatus according to claim 1, Kotola et al. disclose wherein said apparatus comprises an antenna used commonly to both receive said modulated RF signal and to transmit said generated RF signal (column 7 lines 55 to column 8 line 12; column 9 line 66 to column 10 line 27; see Figures 3-4 and 10).

Referring to Claims 16-17, Kotola et al. in view of Shober et al. disclose the RFID apparatus according to claim 1, Kotola et al. disclose a mobile terminal (102) incorporating an RFID apparatus according to claim 1 (column 3 lines 24 to 42; column 4 lines 38 to 46; see Figure 1).

3. Claims 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kotola et al. (US# 6,892,052) in view of Shober et al. (US# 5,649,295) as applied to claim 2 and further in view of Corrigan, III et al. (US# 6,697,345).

Referring to claims 3-6, Kotola et al. in view of Shober et al. disclose the RFID apparatus according to claim 2, however, Kotola et al. in view of Shober et al. did not explicitly disclose wherein said generator comprises a phase locked loop; wherein the phase locked loop is a second order loop.

In the same field of endeavor of a dual mode radio communication system, Corrigan, III et al. teach that a second order phase lock loop (1014) (column 26 lines 33 to 55; see Figure 10) in order to slows down the filtering needed to accurately recover the timing in the discontinuous measurements.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to recognize using the second order phase lock loop filter with a voltage control oscillator to stable clock source taught by Corrigan, III et al. in the dual mode RFID based wireless terminal of Kotola et al. because using the second order phase lock loop filter with a voltage control oscillator would provide a RFID system with a stable clock source to transmit generated RF signal to the tag or other reader.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Refer to the enclosed PTO-892 for details.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nam V. Nguyen whose telephone number is 571-272-3061. The examiner can normally be reached on Mon-Fri, 8:30AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's acting supervisor, Brian Zimmerman can be reached on 571- 272-3059. The fax phone numbers for the organization where this application or proceeding is assigned are 571-273-8300 for regular communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Nam V Nguyen/
Examiner, Art Unit 2612